

The opinion in support of the decision being entered today is *not* binding
precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KOICHI SATO

Appeal 2007-1275
Application 09/824,248¹
Technology Center 2600

Decided: August 8, 2007

Before HOWARD B. BLANKENSHIP, ALLEN R. MACDONALD,
and SCOTT R. BOALICK, *Administrative Patent Judges*.

BOALICK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of
claims 9, 10, and 12-16, all the claims pending in the application. We have
jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Application filed April 3, 2001. The real party in interest is PENTAX
Corporation.

STATEMENT OF THE CASE

Appellant's invention relates to an electronic still camera that processes images which were obtained in a continual photographing operation so as to reproduce and display the images in the same order and at the same time interval as they were recorded. (Specification 1:5-9; Abstract.)

Claim 9 is exemplary:

9. An electronic still camera comprising:

a memory that stores a discrete image obtained in a still photographing operation, and that stores, for each of a plurality of discrete images sequentially obtained in a continual still image photographing operation in which the plurality of discrete images are taken at an interval time set by an operator, a unique indicator that indicates whether said discrete image was sequentially recorded in the continual still image photographing operation;

a determination processor that determines whether the plurality of discrete images were obtained in said continual still image photographing operation; and

an image processor that continually reproduces said plurality of discrete images, as a common operation on said plurality of discrete images, at a same interval as that of said continual still image photographing operation, when it is determined, using said unique indicator, that said plurality of discrete images were obtained in said continual still image photographing operation.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Anderson	US 6,169,575 B1	Jan. 02, 2001
Shioji	US 6,466,264 B1	Oct. 15, 2002

Claims 9, 10, and 12-16 stand rejected under 35 U.S.C. § 103(a) as being obvious over Anderson and Shioji.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellant have been considered in this decision. Arguments which Appellant could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2004).²

ISSUE

The issue is whether Appellant has shown that the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a). That is, given the teachings of the prior art, has Appellant shown that the differences between the claims and the prior art are sufficient to render the claimed subject matter unobvious to a person skilled in the art at the time the invention was made?

² Except as will be noted in this opinion, Appellant has not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See* 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Anderson teaches a digital image data processing system that can be used in a digital camera. (Col. 1, ll. 23-25.) Anderson describes cameras that capture time lapse or burst images where a sequence of images is captured over a set time period. (Col. 1, ll. 38-42.) Anderson also explains that "[u]nfortunately, the related images are not usually easily identified as belonging together" and that "attempts[] to manipulate and access these related image as sets are difficult." (Col. 1, ll. 47-51.)
2. Anderson "provides a method and system for allowing user-specification of a time-based group of related images." (Col. 1, ll. 57-59.) Parameters, such as the length and the time between image captures in an image capture session, are provided with a command to initiate the image capture session. (Col. 1, ll. 60-65; col. 7, ll. 26-30 & 36-40.) Images captured in the image capture session are automatically related so as to form a user-specified time-based group. (Col. 1, l. 67 to col. 2, l. 2.)
3. Anderson teaches that individual image files are identified by image tags. (Col. 6, ll. 10-11.) The image tags may provide indicators such as the image's position within a sequence of images, as well as other

- information that would aid the post-processing of the images. (Col. 6, ll. 12-15.)
4. Shioji describes a digital camera that reproduces images stored on recording media from other digital cameras. (Col. 1, ll. 8-12; col. 2, ll. 5-8.) The camera of Shioji can reproduce still images and motion images. Shioji explains that when "dealing with motion image data, . . . the quality of the frame rate parameter should be taken into consideration." (Col. 1, ll. 30-33.)
 5. Shioji teaches that "[f]or motion image data, in some cases 15 still images constitute 1 second of motion image whereas in other cases 30 still images are required for 1 second of motion image." (Col. 1, ll. 33-36.) In other words, the motion image taught by Shioji is a series of a specified number of still images captured at a specified frame rate. Shioji also teaches that "[f]or proper speed reproduction, reproduction should be suited in [sic] frame rate." (Col. 1, ll. 36-37.) In other words, Shioji teaches that the correct frame rate must be used in order to properly reproduce the motion image.
 6. Shioji teaches that a first motion image signal is shot at a first frame rate and a second motion image signal is shot at a different frame rate. (Col. 3, ll. 29-35, 55-61.) The first and second motion image signals each include frame rate information. (Col. 4, ll. 1-2, 58-62.) In particular, frame rate information and other information such as file

number are written in a header of the motion image file. (Col. 10, ll. 51-61.) Figure 5 shows "exemplary qualities associated with typical parameters of a reproduce [sic] system." (Col. 4, ll. 22-23). In particular, Figure 5 shows two different frame rate parameters -- i.e., 30 frames per second and 15 frames per second. (Fig. 5.)

7. In the camera of Shioji, a desired motion image signal is selected by a selector (col. 3, ll. 49-50, 61-62), and the frame rate of the desired motion image signal is detected by a detector (col. 3, ll. 50-51, 62-63; col. 4, ll. 3-4). The desired motion image signal is reproduced by a reproducer at the frame rate detected by the detector (col. 3, ll. 51-53, 63-67).
8. Figure 1 of Shioji shows an embodiment of a digital camera that includes: a record/reproduce mode (R/P) select switch 20 and a reproduce mode select switch 22; a system controller 26 connected to switches 20 and 22; a CPU 19 connected to the system controller 26; a video encoder 9 connected to a monitor 10 mounted on the camera body; a memory control circuit 7 connected to a data storage area of SDRAM 6; a disk control circuit 12 connected to a magneto-optical disk 14; and a bus 8 connected to the CPU 19, memory control circuit 7, video encoder 9, and disk control circuit 12. (Col 5, l. 22 to col. 7, l. 51.)

9. Shioji explains that the R/P select switch 20 selects either a record mode or a reproduce mode. (Col. 7, ll. 4-5.) The reproduce mode select switch 22 selects either a still image reproduce mode or a motion image reproduce mode. (Col. 7, ll. 8-9.) Shioji teaches that "[w]hen a reproduce mode is selected by the R/P select switch 20, the system controller 26 supplies the CPU 19 with a key state signal that corresponds to a status of the reproduce select switch 22." (Col. 7, ll. 20-23.) Referring to step S61 of Figure 10, Shioji explains that the CPU 19 determines whether either a still image reproduce mode or a motion image reproduce mode is selected when a reproduce mode is selected. (Col. 11, ll. 3-10.)
10. Referring to Figures 13 and 14, Shioji teaches that, in a motion image reproduce mode, an image file select process is performed at step S101. (Col. 39-41.) Frame rate information contained in the motion image file is detected at step S107. (Col. 12, ll. 49-51.) At step S119, the CPU 19 starts up the video encoder 9 and sets a time period corresponding to the detected frame rate information on to a timer 19a in step S121. (Col. 13, ll. 6-9.) "By the process of steps S121-S133, the compressed image data in each frame and sound data corresponding to 1 frame are reproduced in the order according to a time on the timer 19a. As a result, motion images are displayed varying at normal speed." (Col. 13, ll. 52-57.)

PRINCIPLES OF LAW

On appeal, all timely filed evidence and properly presented argument is considered by the Board. *See In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

In the examination of a patent application, the Examiner bears the initial burden of showing a prima facie case of unpatentability. *Id.* at 1472, 223 USPQ at 788. When that burden is met, the burden then shifts to the applicant to rebut. *Id.*; *see also In re Harris*, 409 F.3d 1339, 1343-44, 74 USPQ2d 1951, 1954-55 (Fed. Cir. 2005) (finding rebuttal evidence unpersuasive). If the applicant produces rebuttal evidence of adequate weight, the prima facie case of unpatentability is dissipated. *In re Piasecki*, 745 F.2d at 1472, 223 USPQ at 788. Thereafter, patentability is determined in view of the entire record. *Id.* However, on appeal to the Board it is an appellant's burden to establish that the Examiner did not sustain the necessary burden and to show that the Examiner erred -- on appeal we will not start with a presumption that the Examiner is wrong.

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham*

v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls."). The Court in *Graham* further noted that evidence of secondary considerations, such as commercial success, long felt but unsolved needs, failure of others, etc., "might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U.S. at 18, 148 USPQ at 467. "If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid under § 103." *KSR*, 127 S. Ct. at 1734, 82 USPQ2d at 1391.

The mere existence of differences between the prior art and the claim does not establish nonobviousness. *Dann v. Johnston*, 425 U.S. 219, 230, 189 USPQ 257, 261 (1976). The issue is "whether the difference between the prior art and the subject matter in question 'is a difference sufficient to render the claimed subject matter unobvious to one skilled in the applicable art.'" *Dann*, 425 U.S. at 228-29, 189 USPQ at 261 (citation omitted). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *KSR*, 127 S. Ct. at 1740, 82 USPQ2d at 1396.

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the

'functional approach' of *Hotchkiss*, 11 How. 248 [(1850)]." *KSR*, 127 S. Ct. at 1739, 82 USPQ2d at 1395 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12, 148 USPQ 459, 464 (1966) (emphasis added)), and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740, 82 USPQ2d at 1396. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at 1740, 82 USPQ2d at 1396.

The Court noted that "[t]o facilitate review, this [obviousness] analysis should be made explicit." *Id.* at 1741, 82 USPQ2d at 1396 (citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of

obviousness")). However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.* The Court cautioned that "[a] factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning." *Id.* at 1742, 82 USPQ2d at 1397.

The Court noted that "[i]n many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends." *KSR*, 127 S. Ct. at 1741, 82 USPQ2d at 1396. "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 1742, 82 USPQ2d at 1397. The Court also noted that "[c]ommon sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 1742, 82 USPQ2d at 1397. "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *Id.*

Furthermore, the Supreme Court explained that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *KSR*, 127 S. Ct. at 1742, 82 USPQ2d at 1397. "If this leads to the

anticipated success, it is likely the product not of innovation but of ordinary skill and common sense," *id.* and, in such an instance "the fact that a combination was obvious to try might show that it was obvious under § 103" *id.*

The level of ordinary skill in the art may be evidenced by the prior art references. *In re GPAC Inc.*, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995) ("Although the Board did not make a specific finding on skill level, it did conclude that the level of ordinary skill in the art . . . was best determined by appeal to the references of record We do not believe that the Board clearly erred in adopting this approach."); *see also In re Oelrich*, 579 F.2d 86, 91, 198 USPQ 210, 214 (CCPA 1978) ("the PTO usually must evaluate both the scope and content of the prior art and the level of ordinary skill solely on the cold words of the literature").

In sustaining a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458 n.2, 150 USPQ 441, 444 n.2 (CCPA 1966).

During examination of patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312, 75 USPQ2d 1321, 1326 (Fed. Cir. 2005) (en banc) (internal citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have

to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313, 75 USPQ2d at 1326.

ANALYSIS

Appellant contends that Examiner erred in rejecting claims 9, 10, and 12-16 as being obvious over Anderson and Shioji. Reviewing the findings of facts cited above, we do not agree that the Examiner erred in rejecting the claims. In particular, we find that the Appellant has not shown that the Examiner failed to make a prima facie showing of obviousness with respect to claims 9, 10, and 12-16. Appellant failed to meet the burden of overcoming that prima facie showing.

Regarding claim 9, Appellant argues that the combination of Anderson and Shioji would not result in the recited combination of features. (Br. 7; Reply Br. 3.) In particular, Appellant argues that Shioji does not disclose or suggest either "a determination processor that determines whether the plurality of discrete images were obtained in said continual still image photographing operation" or "an image processor that continually reproduces said plurality of discrete images, as a common operation on said plurality of discrete images, at a same interval as that of said continual still image photographing operation, when it is determined, using said unique indicator, that said plurality of discrete images were obtained in said continual still image photographing operation," as claimed. (Br. 6-7; Reply Br. 2-3.) We do not agree.

Instead, we agree with the Examiner that Shioji discloses the recited "determination processor" and "image processor" limitations of claim 9. (Answer 4-5, 8-10; FF 6-10.) Appellant contends that "SHIOJI does not disclose the continual still image photographing operation as recited in claim 9." (Reply Br. 3; *see also* Br. 7-10, Reply Br. 4-5.) However, as the Examiner correctly found, the motion image of Shioji is "a series of captured still images captured at a frame rate (interval)." (Answer 8; FF 5.)

Appellant also contends that "[t]here is no disclosure whatever in SHIOJI that an operator would select a frame rate for any operation related to obtaining still images." (Br. 9.) However, the Examiner correctly found that Anderson teaches this limitation (Answer 9-10; FF 2) and that Shioji also meets this limitation because it "discloses the ability to select a frame rate for any operation related to obtaining still images by providing the user the ability to select different frame rates (i.e. 30 fps or 15 fps)" (Answer 10; FF 5-6).

Moreover, Appellant asserts that "SHIOJI does not disclose that a unique indicator is used to determine whether a plurality of discrete images were obtained in a continual still image photographing operation." (Reply Br. 4.) However, the Examiner correctly found that "Anderson teaches the ability to tag the images as a time lapse (continual still) and to specify the interval at which they were captured" (Answer 10; FF 2-3) and that "one would be motivated to reproduce the time-lapse image using the same speed at which it was captured" (Answer 10; FF 4-5). In addition, the Examiner correctly found that in Shioji "the CPU [19] determines a still image reproduction mode or a motion image reproduction mode" (Answer 7; FF 9)

and that "Shioji teaches a way of playing back a sequence of captured images at a rate at which it was captured using the unique identifier (frame rate setting stored with the image)" (Answer 10; FF 5-7, 10).

Finally, Appellant's pre-*KSR* briefs assert that there is no proper motivation to combine Anderson and Shioji. (Br. 9-10; Reply Br. 5-6.) In particular, Appellant argues that combining Shioji with Anderson would not contribute to the objective of Anderson "to provide 'easily identifiable image groups of related images.'" (Br. 9; *see also* Reply Br. 5.) *KSR* forecloses this argument. Appellant also asserts that hindsight is the only motivation for combining Anderson and Shioji (Br. 9-10; Reply Br. 6). However, Appellant has not shown that the Examiner engaged in impermissible hindsight.

Accordingly, we conclude that the Examiner did not err in rejecting claim 9 under 35 U.S.C. § 103(a).

With respect to claim 13, Appellant again argues that the motion image of Shioji is not a "plurality of discrete images" as claimed. (Br. 12.) As discussed with respect to claim 9, we agree with the Examiner that the motion image of Shioji meets the claimed "plurality of discrete images" limitation. (Answer 10; FF 5.)

Accordingly, we conclude that the Examiner did not err in rejecting claim 13 under 35 U.S.C. § 103(a).

Regarding claim 15, Appellant argues that the limitations of claim 15 are not disclosed or suggested for the same reasons discussed with respect to claim 9. (Br. 13; Reply Br. 6-7.) We disagree, and as discussed above with

respect to claim 9, we find that the Examiner properly found each of the claimed limitations to be present in the prior art.

The issue of non-functional descriptive material was not raised by the Appellant or the Examiner, and is not necessary for a resolution of the issue in this appeal. However, we note that several limitations of claim 15 are highly suggestive of that doctrine of law.

Accordingly, we conclude that the Examiner did not err in rejecting claim 15 under 35 U.S.C. § 103(a).

Appellant argues that claims 10, 12, 14, and 16 are separately patentable because neither Anderson nor Shioji teach the respective limitations of these claims. (Br. 11, 13-14.) However, the Examiner found that Shioji teaches the limitations of claims 10, 14, and 16, and took Official Notice that the limitation of claim 12 was well known in the art. (Answer 5-6, 8.) Appellant has provided no explanation of why the Examiner's findings are in error, nor has Appellant pointed to any evidence to indicate that the Examiner's findings were incorrect. Therefore, we are not persuaded that the Examiner erred in rejecting claims 10, 12, 14, and 16.

Accordingly, we conclude that the Examiner did not err in rejecting claim 10, 12, 14, and 16 under 35 U.S.C. § 103(a).

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that the Examiner did not err in rejecting claims 9, 10, and 12-16.

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DECISION

The rejection of claims 9, 10, and 12-16 for obviousness under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

KIS

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